STIC Search Report
Biotech-Chem Library

STIC Database Tracking Number: 189701

TO: Deborah Lambkin **Location: rem/5B09/5C18** **Art Unit: 1626** **Friday, May 19, 2006** **Case Serial Number: 10/766990**	**From: Saloni Sharma** **Location: Biotech-Chem Library** **REM-1A64** **Phone: (571)272-8601** **saloni.sharma@uspto.gov**

Search Notes

Examiner Lambkin,

See attached results.

If you have any questions about this search feel free to contact me at any time.

Thank you for using STIC search services!

Saloni Sharma
Technical Information Specialist
STIC Biotech/Chem Library
(571)272-8601

STIC SEARCH RESULTS FEEDBACK FORM

Biotech-Chem Library

Questions about the scope or the results of the search? Contact *the searcher or contact:*

Mary Hale, Information Branch Supervisor
Remsen Bldg. 01 D86
571-272-2507

Voluntary Results Feedback Form

- *I am an examiner in Workgroup:* ☐ *Example: 1610*
- *Relevant prior art **found**, search results used as follows:*
  - ☐ 102 rejection
  - ☐ 103 rejection
  - ☐ Cited as being of interest.
  - ☐ Helped examiner better understand the invention.
  - ☐ Helped examiner better understand the state of the art in their technology.

Types of relevant prior art found:

- ☐ Foreign Patent(s)
- ☐ Non-Patent Literature
  (journal articles, conference proceedings, new product announcements etc.)

- *Relevant prior art **not found**:*
  - ☐ Results verified the lack of relevant prior art (helped determine patentability).
  - ☐ Results were not useful in determining patentability or understanding the invention.

Comments:

Drop off or send completed forms to STIC Biotech-Chem Library, Remsen Bldg.

Access DB# 189701

SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: Deborah Lambkin Examiner #: 71300 Date: 5/11/06
Art Unit: 1626 Phone Number ~~30~~ 571-272-0698 Serial Number: 10/766,990
Mail Box and Bldg/Room Location: 5B09 Results Format Preferred (circle): PAPER DISK E-MAIL
5C18

If more than one search is submitted, please prioritize searches in order of need. MGJ

****

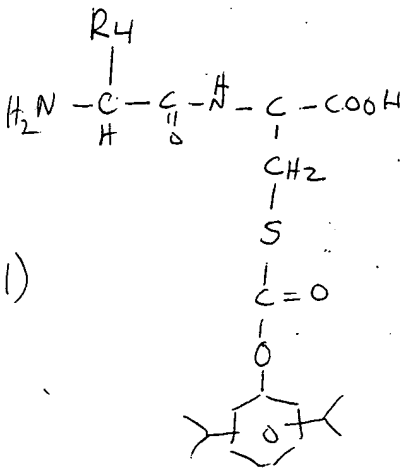
Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: Amino Acid Derived Prodrugs of Propofol . . .

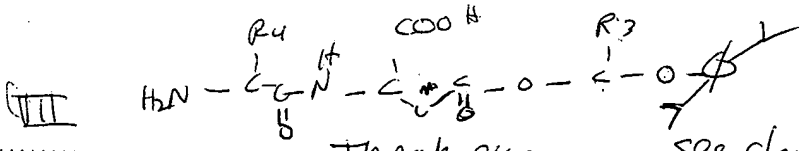
Inventors (please provide full names): Gallop et al

Earliest Priority Filing Date: 2003

For Sequence Searches Only *Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.* Please research the following two structures:



(VI)



(VII)

Thankyou see claims elected

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STAFF USE ONLY

Searcher: _____
Searcher Phone #: _____
Searcher Location: _____
Date Searcher Picked Up: 5/15/06
Date Completed: 5/19/06
Searcher Prep & Review Time: 40
Clerical Prep Time: _____
Online Time: 50

Type of Search

NA Sequence (#) _____
AA Sequence (#) _____
Structure (#) _____
Bibliographic _____
Litigation _____
Fulltext _____
Patent Family _____
Other _____

Vendors and cost where applicable

STN _____
Dialog _____
Questel/Orbit _____
Dr.Link _____
Lexis/Nexis _____
Sequence Systems _____
WWW/Internet _____
Other (specify) _____

PTO-1590 (8-01)

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L2              STRUCTURE UPLOADED
L3              QUE ABB=ON  PLU=ON  L2 AND L1
                D L1
                D L2
L4            1 SEA SSS SAM L2
                D SCAN

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     FILE 'CAPLUS' ENTERED AT 09:31:22 ON 19 MAY 2006
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                SEL RN L5

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L8         1186 SEA ABB=ON  PLU=ON  ("XU F"/AU OR "XU F C"/AU OR "XU F D"/AU
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                "XU F LAUREN"/AU OR "XU F M"/AU OR "XU F P"/AU OR "XU F Q"/AU
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                OR "XU F R"/AU OR "XU F S"/AU OR "XU F T"/AU OR "XU F X"/AU OR
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                FENG MING"/AU OR "XU FENG QIN"/AU OR "XU FENG RONG"/AU OR "XU
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L9           86 SEA ABB=ON  PLU=ON  ("CUNDY K"/AU OR "CUNDY K C"/AU OR "CUNDY
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L10           7 SEA ABB=ON  PLU=ON  ("SASIKUMAR V"/AU OR "SASIKUMAR VIVEK"/AU
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                D SCAN

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L17           7 SEA SSS FUL L2
L18           2 SEA ABB=ON  PLU=ON  L17/COM
L19           1 SEA ABB=ON  PLU=ON  L18 NOT L14

=> file caplus
FILE 'CAPLUS' ENTERED AT 10:24:03 ON 19 MAY 2006
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2006 AMERICAN CHEMICAL SOCIETY (ACS)
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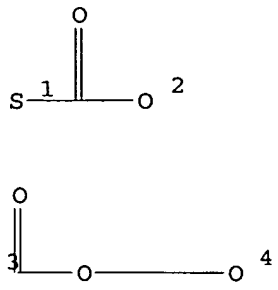
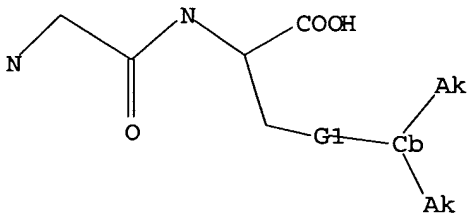
FILE COVERS 1907 - 19 May 2006 VOL 144 ISS 22
FILE LAST UPDATED: 18 May 2006 (20060518/ED)

Effective October 17, 2005, revised CAS Information Use Policies apply.
They are available for your review at:

http://www.cas.org/infopolicy.html
'OBI' IS DEFAULT SEARCH FIELD FOR 'CAPLUS' FILE

=> d que l14
L2 STR





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Structure attributes must be viewed using STN Express query preparation.
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L14 1 SEA FILE=CAPLUS ABB=ON PLU=ON L13

=> d ibib abs hitstr l14 tot

L14 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2005:15965 CAPLUS
DOCUMENT NUMBER: 142:94139
TITLE: Preparation of amino acid-derived prodrugs of propofol
INVENTOR(S): Gallop, Mark A.; Xu, Feng; Cundy, Kenneth C.; Sasikumar, Vivek; Woiwode, Thomas W.
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 52 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2005004381	A1	20050106	US 2004-766990	20040128
AU 2004268492	A1	20050310	AU 2004-268492	20040128
CA 2510677	AA	20050310	CA 2004-2510677	20040128
WO 2005021024	A1	20050310	WO 2004-US2537	20040128
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP 1587527	A1	20051026	EP 2004-706490	20040128
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
CN 1744908	A	20060308	CN 2004-80002967	20040128
NO 2005003972	A	20050825	NO 2005-3972	20050825
PRIORITY APPLN. INFO.:			US 2003-443315P	P 20030128
			WO 2004-US2537	W 20040128

OTHER SOURCE(S): MARPAT 142:94139

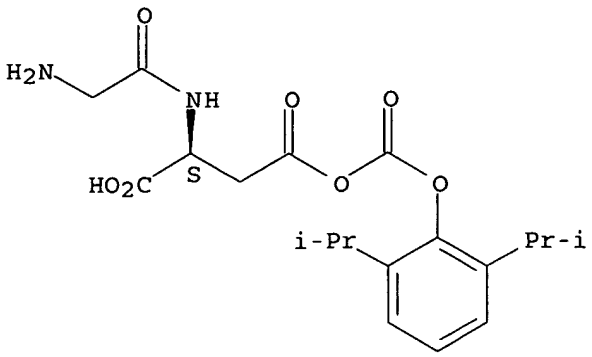
AB The invention provides propofol (2,6-diisopropylphenol; HOQ) prodrugs, including methods for their synthesis and use to treat or prevent diseases or disorders such as migraine headache pain and post-chemotherapy or post-operative surgery nausea and vomiting. Amino acid and peptide prodrugs R1NHCH[(CH2)1-2-X-CO(CHR3)0-1OQ]COR2 [X is a bond, CH2, imino, O or S; R1 is H, R5NH(CHR4)1-2CO, R6, R6CO or R6O2C; R2 is OR7 or NR8(CHR9)1-2CO2R7; R3 is H, (un)substituted alkyl, aryl, carbamoyl, cycloalkyl, etc.; R4, R9 are independently H, (un)substituted alkyl, alkoxy, acyl, alkoxycarbonyl, aryl, arylalkyl, carbamoyl, cycloalkyl, cycloheteroalkyl, heteroalkyl, heteroaryl or heteroarylalkyl; or R4 and R5 or R8 and R9 on adjacent atoms form cycloheteroalkyl; R5 is H, R6 or R6CO; R6, R8 are independently (un)substituted alkyl, aryl, arylalkyl, cycloalkyl, cycloheteroalkyl, heteroaryl or heteroarylalkyl; R7 is H or R6] or their pharmaceutically-acceptable salts or N-oxides are claimed. Thus, H-Glu(OQ)-Asp-OH was prepared and had oral bioavailability as propofol > 40%.

IT **819815-11-7P 819815-12-8P 819816-32-5P**
819816-37-0P 819816-38-1P 819816-39-2P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of amino acid-derived prodrugs of propofol)

RN 819815-11-7 CAPLUS

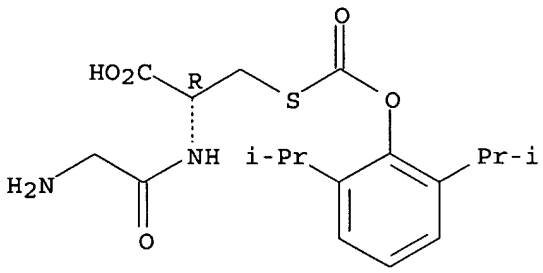
CN L-Aspartic acid, glycyl-, 24-anhydride with 2,6-bis(1-methylethyl)phenyl hydrogen carbonate (9CI) (CA INDEX NAME)

Absolute stereochemistry.



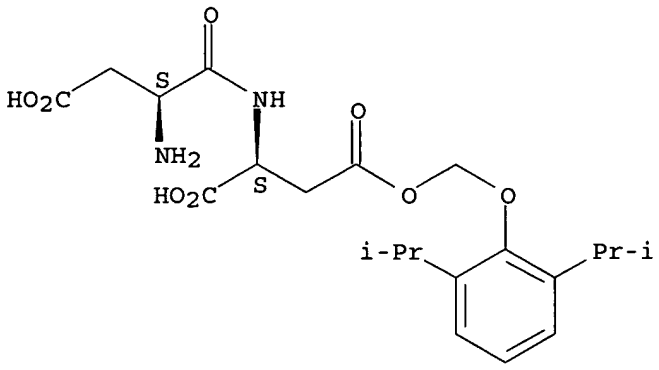
RN 819815-12-8 CAPLUS
CN L-Cysteine, glycyl-, 2,6-bis(1-methylethyl)phenyl carbonate (ester) (9CI) (CA INDEX NAME)

Absolute stereochemistry.



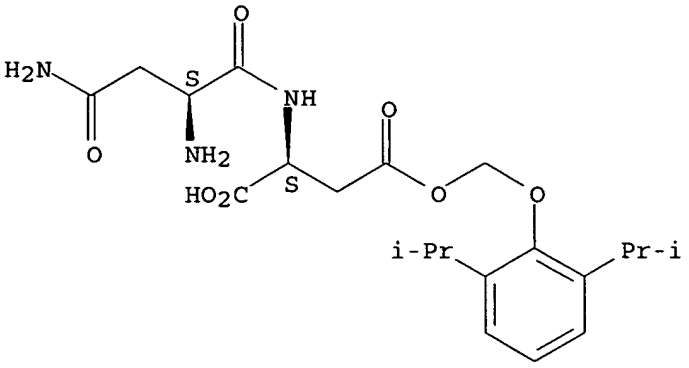
RN 819816-32-5 CAPLUS
CN L-Aspartic acid, L-α-aspartyl-, 24-[[2,6-bis(1-methylethyl)phenoxy]methyl] ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



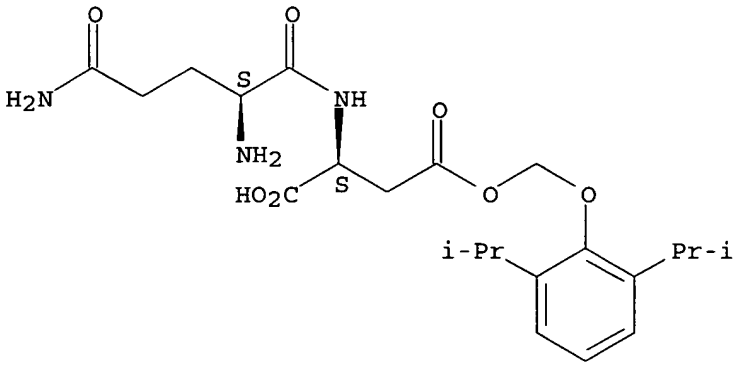
RN 819816-37-0 CAPLUS
CN L-Aspartic acid, L-asparaginyl-, 24-[[2,6-bis(1-methylethyl)phenoxy]methyl] ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 819816-38-1 CAPLUS
CN L-Aspartic acid, L-glutaminyl-, 24-[[2,6-bis(1-methylethyl)phenoxy]methyl] ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 819816-39-2 CAPLUS
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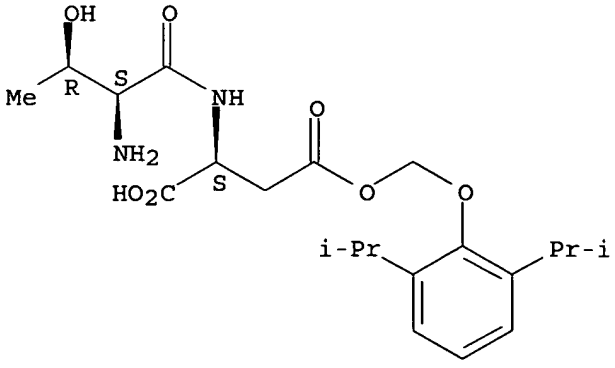
Absolute stereochemistry.

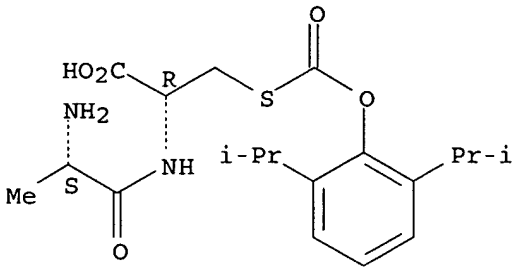


IT **819816-27-8P 819816-30-3P 819816-31-4P**

819816-36-9P 819816-40-5P 819816-41-6P
819816-42-7P 819816-43-8P 819816-44-9P
819817-02-2P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of amino acid-derived prodrugs of propofol)

RN 819816-27-8 CAPLUS
CN L-Cysteine, L-alanyl-, 2,6-bis(1-methylethyl)phenyl carbonate (ester) (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 819816-30-3 CAPLUS
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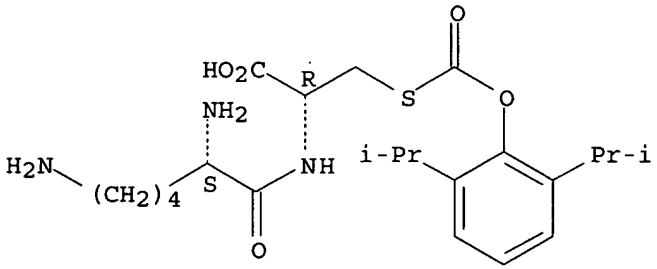
Absolute stereochemistry.



RN 819816-31-4 CAPLUS
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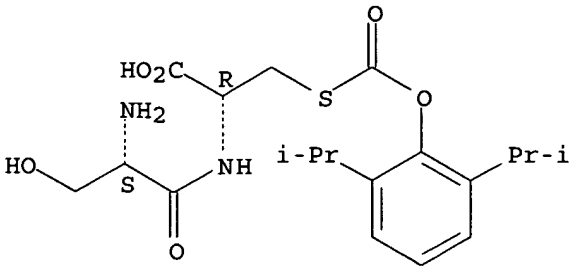
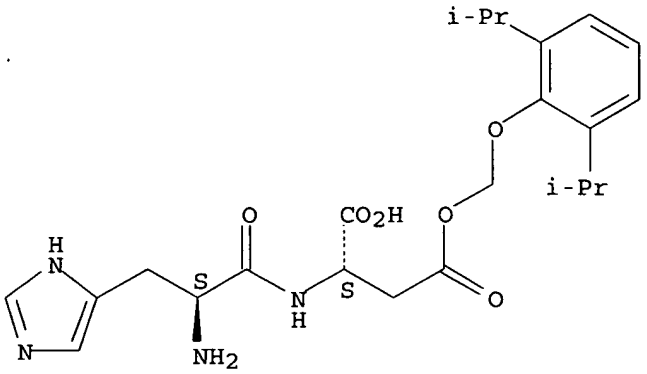
Absolute stereochemistry.



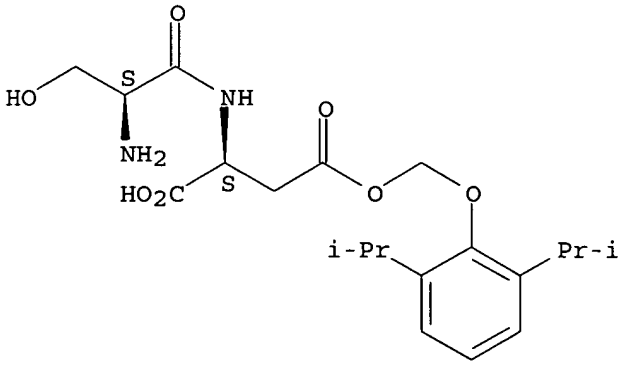
RN 819816-36-9 CAPLUS
CN L-Aspartic acid, L-histidyl-, 24-[[2,6-bis(1-methylethyl)phenoxy]methyl] ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



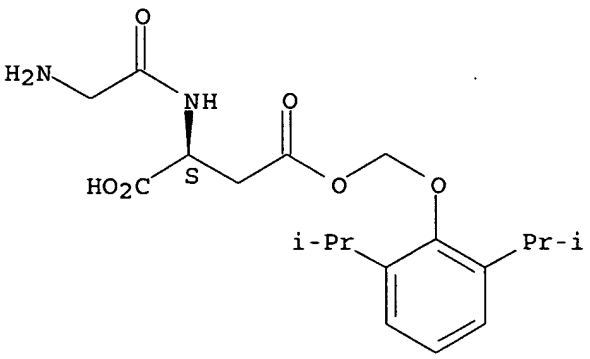
RN 819816-40-5 CAPLUS
CN L-Aspartic acid, L-seryl-, 24-[[2,6-bis(1-methylethyl)phenoxy]methyl] ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



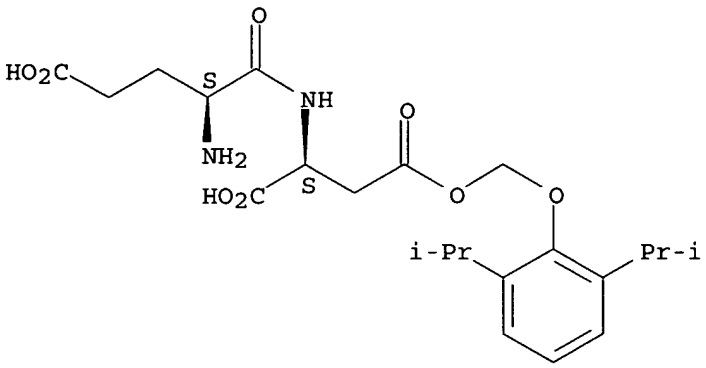
RN 819816-41-6 CAPLUS
CN L-Aspartic acid, glycyl-, 24-[[2,6-bis(1-methylethyl)phenoxy]methyl] ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 819816-42-7 CAPLUS
CN L-Aspartic acid, L-α-glutamyl-, 24-[[2,6-bis(1-methylethyl)phenoxy]methyl] ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 819816-43-8 CAPLUS
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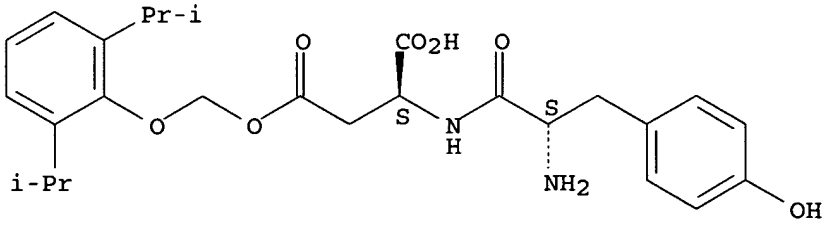
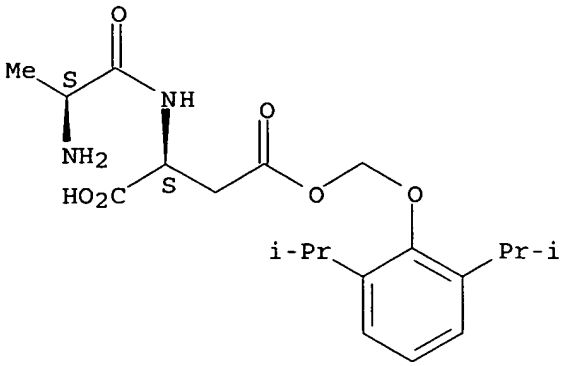
Absolute stereochemistry.



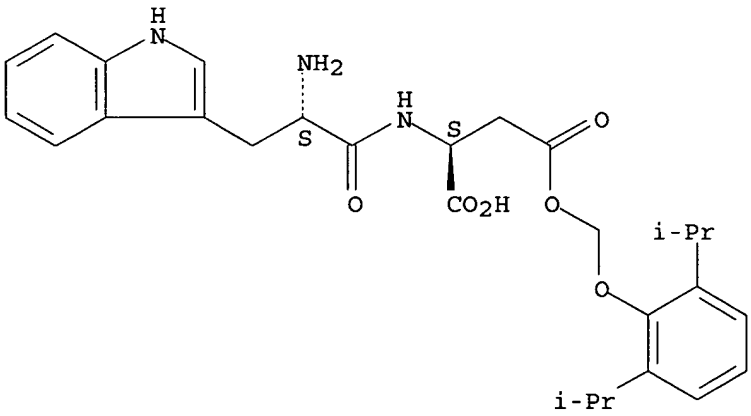
RN 819816-44-9 CAPLUS
CN L-Aspartic acid, L-alanyl-, 24-[[2,6-bis(1-methylethyl)phenoxy]methyl] ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 819817-02-2 CAPLUS
CN L-Aspartic acid, L-tryptophyl-, 24-[[2,6-bis(1-methylethyl)phenoxy]methyl] ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



Inventor Search

=> d que l12
L7 113 SEA FILE=CAPLUS ABB=ON PLU=ON ("GALLOP M"/AU OR "GALLOP M A"/AU OR "GALLOP MARC"/AU OR "GALLOP MARK"/AU OR "GALLOP MARK A"/AU)
L8 1186 SEA FILE=CAPLUS ABB=ON PLU=ON ("XU F"/AU OR "XU F C"/AU OR "XU F D"/AU OR "XU F F"/AU OR "XU F H"/AU OR "XU F J"/AU OR "XU F L"/AU OR "XU F LAUREN"/AU OR "XU F M"/AU OR "XU F P"/AU OR "XU F Q"/AU OR "XU F R"/AU OR "XU F S"/AU OR "XU F T"/AU OR "XU F X"/AU OR "XU F Y"/AU OR "XU F Z"/AU OR "XU FENG"/AU OR "XU FENG BIN"/AU OR "XU FENG BO"/AU OR "XU FENG CAI"/AU OR "XU FENG DAN"/AU OR "XU FENG FENG"/AU OR "XU FENG GUANG"/AU OR "XU FENG HAO"/AU OR "XU FENG HE"/AU OR "XU FENG HEH"/AU OR "XU FENG HUA"/AU OR "XU FENG HUANG"/AU OR "XU FENG J"/AU OR "XU FENG JI"/AU OR "XU FENG LAN"/AU OR "XU FENG LIN"/AU OR "XU FENG LING"/AU OR "XU FENG MING"/AU OR "XU FENG QIN"/AU OR "XU FENG RONG"/AU OR "XU FENG TING"/AU OR "XU FENG XIA"/AU OR "XU FENG XIU"/AU OR "XU FENG XUN"/AU OR "XU FENG YIN"/AU OR "XU FENG YING"/AU OR "XU FENG ZHI"/AU OR "XU FENG ZI"/AU)
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L10            7 SEA FILE=CAPLUS ABB=ON  PLU=ON  ("SASIKUMAR V"/AU OR "SASIKUMAR
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L11            1 SEA FILE=CAPLUS ABB=ON  PLU=ON  "WOIWODE THOMAS W"/AU
L12           24 SEA FILE=CAPLUS ABB=ON  PLU=ON  (L7 AND (L8 OR L9 OR L10 OR
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               OR (L10 AND L11)


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L12  ANSWER 1 OF 24  CAPLUS  COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER:         2006:152690  CAPLUS
DOCUMENT NUMBER:          144:233376
TITLE:                    Preparation of amino acid derivative prodrugs of
                          propofol and pharmaceutical compositions containing
                          them
INVENTOR(S):              Xu, Feng; Gallop, Mark A.
PATENT ASSIGNEE(S):       Xenoport, Inc., USA
SOURCE:                   PCT Int. Appl., 77 pp.
                          CODEN: PIXXD2
DOCUMENT TYPE:            Patent
LANGUAGE:                 English
FAMILY ACC. NUM. COUNT:   1
PATENT INFORMATION:

     PATENT NO.           KIND   DATE        APPLICATION NO.         DATE
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     WO 2006017351         A1    20060216    WO 2005-US24907         20050712
         W:  AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,
             CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,
             GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ,
             LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA,
             NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK,
             SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU,
             ZA, ZM, ZW
         RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,
             IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ,
             CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH,
             GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
             KG, KZ, MD, RU, TJ, TM
     US 2006041011         A1    20060223    US 2005-180332          20050712
PRIORITY APPLN. INFO.:                       US 2004-587469P     P   20040712
OTHER SOURCE(S):          MARPAT 144:233376
AB   The invention provides propofol (2,6-diisopropylphenol; HOQ) prodrugs
     A-Y-CH2(CR1R2)n-X-CO2Q [R1, R2 is H, (un)substituted alkyl, aryl,
     arylalkyl, heteroalkyl, heteroaryl or heteroarylalkyl, or R1R2C is
     (un)substituted cycloalkyl or cycloheteroalkyl; A is H, (un)substituted
     acyl, alkyl, aryl, arylalkyl, heteroalkyl, heteroaryl or heteroarylalkyl;
     or A, Y and one of R1 and R2 together with the atoms to which they are
     bonded form a cycloheteroalkyl or substituted cycloheteroalkyl ring; Y is
     O or NR3; n is 1-5; X is NR4, O, CH2 or S; R3, R4 are independently H,
     (un)substituted alkyl or arylalkyl] or their-pharmaceutically acceptable
     salts, N-oxides, etc., which are used to treat or prevent diseases or
     disorders such as migraine headache pain and post chemotherapy or post
     operative surgery nausea and vomiting.  Thus, H-L-Val-NH(CH2)3CO2Q.CF3CO2H
     was prepared via esterification and N-acylation reactions and was shown to
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provide at least about 40 times higher oral bioavailability of propofol compared to the oral bioavailability of propofol itself.

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 2 OF 24 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2006:147708 CAPLUS
DOCUMENT NUMBER: 144:213018
TITLE: Preparation of amino acid-derived prodrugs of propofol and compositions containing them
INVENTOR(S): **Xu, Feng; Gallop, Mark A.; Sasikumar, Vivek**
PATENT ASSIGNEE(S): Xenoport, Inc., USA
SOURCE: PCT Int. Appl., 61 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006017352	A1	20060216	WO 2005-US24915	20050712
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
US 2006100160	A1	20060511	US 2005-180064	20050712
PRIORITY APPLN. INFO.:			US 2004-587611P P	20040712

OTHER SOURCE(S): MARPAT 144:213018

AB The invention provides propofol (2,6-diisopropylphenol; HOQ) prodrugs R1NHCH(CHMeOCO2-Q)COR2 [R1 is H, R5NH(CHR4)1-2CO, R6, R6CO or R6O2C; R2 is OR7 or NR8(CHR9)1-2CO2R7; R4 is H, (un)substituted alkyl, alkoxy, acyl, alkoxycarbonyl, aryl, arylalkyl, carbamoyl, cycloalkyl, cycloheteroalkyl, heteroalkyl, heteroaryl or heteroarylalkyl; or R4 and R5 attached to adjacent atoms form cycloheteroalkyl; R5 is H, R6, R6CO or R6O2C; R6 is (un)substituted alkyl, aryl, arylalkyl, cycloalkyl, cycloheteroalkyl, heteroaryl or heteroarylalkyl; R7, R8 are H or groups defined for R6; R9 is a group defined for R4; or R8 and R9 attached to adjacent atoms form cycloheteroalkyl; with the proviso that when R2 is NR8(CHR9)1-2CO2R7 then R1 is not NR5(CHR4)1-2CO] or their-pharmaceutically acceptable salts, N-oxides, etc., which are used to treat or prevent diseases or disorders such as migraine headache pain and post chemotherapy or post operative surgery nausea and vomiting. Thus, H-Gly-Thr(CO2-Q)-OH was prepared via esterification and N-acylation reactions and was shown to provide at least about 40 times higher oral bioavailability of propofol compared to the oral bioavailability of propofol itself.

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 3 OF 24 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2005:1333577 CAPLUS
DOCUMENT NUMBER: 144:70108
TITLE: Preparation of levodopa derivative prodrugs
INVENTOR(S): Xiang, Jia-Ning; **Gallop, Mark A.**; Zhou, Cindy X.; Nguyen, Mark; Dai, Xuedong; Li, Jianhua; **Cundy, Kenneth C.**; Jumbe, Nelson L.
PATENT ASSIGNEE(S): Xenoport, Inc., USA
SOURCE: PCT Int. Appl., 89 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005121069	A1	20051222	WO 2005-US19492	20050603
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 2005282891	A1	20051222	US 2005-145159	20050603
PRIORITY APPLN. INFO.:			US 2004-577087P P	20040604
OTHER SOURCE(S):	MARPAT 144:70108			

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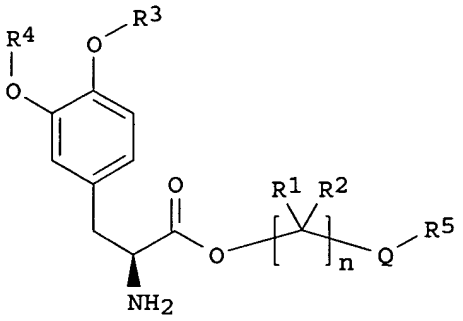

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AB The invention relates to levodopa derivs. I [Q is X-CO or CO-X, where X is O, NH, alkyl- or arylimino; n is 2-4; R1, R2, R5 are H, (un)substituted alkyl, aryl, arylalkyl, cycloalkyl, heteroalkyl, cycloheteroalkyl, heteroaryl, heteroarylalkyl, etc.; R3, R4 are independently acyl, esters groups, acyloxyalkyl, etc.] or their stereoisomers and pharmaceutically-acceptable salts, including methods for their use as prodrugs. Thus, treatment of cyclohexanol with 2-bromopropionyl chloride and then Boc-DOPA afforded diastereoisomers 1(R)- and 1(S)-

cyclohexyloxycarbonylethyl 2(S)-amino-3-(3,4-dihydroxyphenyl)propanoate.
REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 4 OF 24 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2005:1328684 CAPLUS
DOCUMENT NUMBER: 144:51895
TITLE: Preparation of levodopa derivative prodrugs
INVENTOR(S): Xiang, Jia-Ning; **Gallop, Mark A.**; Zhou, Cindy X.; Nguyen, Mark Q.; Dai, Xuedong; Li, Jianhua; **Cundy, Kenneth C.**
PATENT ASSIGNEE(S): Xenoport, Inc., USA
SOURCE: PCT Int. Appl., 61 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005121070	A1	20051222	WO 2005-US19493	20050603
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RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 2006020028	A1	20060126	US 2005-145280	20050603
PRIORITY APPLN. INFO.:			US 2004-577065P P	20040604

OTHER SOURCE(S): MARPAT 144:51895
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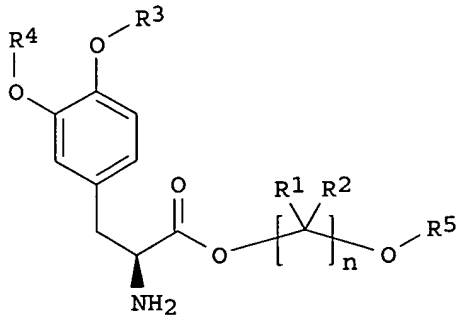

I

AB The invention relates to levodopa derivs. I [n is 1-6; R1, R2, R5 are (un)substituted alkyl, aryl, arylalkyl, cycloalkyl, heteroalkyl, cycloheteroalkyl, heteroaryl, heteroarylalkyl, etc. (R1 and R2 may also be

H); R3, R4 are independently acyl, esters groups, acyloxyalkyl, etc.] or their stereoisomers and pharmaceutically-acceptable salts, including methods for their use as prodrugs. Thus, a suspension of N-Boc-L-dopa, 2-(4-fluorophenoxy)ethyl bromide and K2CO3 in DMA was stirred at 65°C overnight. Work-up and treatment with 4.0M HCl in 1,4-dioxane afforded 2-(4-fluorophenoxy)ethyl 2(S)-amino-3-(3,4-dihydroxyphenyl)propanoate hydrochloride.

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 5 OF 24 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2005:232583 CAPLUS
DOCUMENT NUMBER: 142:291418
TITLE: Aromatic prodrugs of propofol, their preparation, compositions, and therapeutic uses
INVENTOR(S): **Gallop, Mark A.; Xu, Feng**
PATENT ASSIGNEE(S): Xenoport, Inc., USA
SOURCE: PCT Int. Appl., 101 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005023204	A2	20050317	WO 2004-US30999	20040909
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
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US 2005107385	A1	20050519	US 2004-958089	20040909
PRIORITY APPLN. INFO.:			US 2003-501609P P	20030909

OTHER SOURCE(S): MARPAT 142:291418
AB The invention discloses prodrugs of propofol, methods of making prodrugs of propofol, pharmaceutical compns. of prodrugs of propofol, and methods of using prodrugs of propofol and pharmaceutical compns. thereof to treat or prevent diseases or disorders such as migraine headache pain and post-chemotherapy or post-operative surgery nausea and vomiting.

L12 ANSWER 6 OF 24 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2005:15965 CAPLUS
DOCUMENT NUMBER: 142:94139
TITLE: Preparation of amino acid-derived prodrugs of propofol
INVENTOR(S): **Gallop, Mark A.; Xu, Feng;**
Cundy, Kenneth C.; Sasikumar, Vivek;
Woiwode, Thomas W.
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 52 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2005004381	A1	20050106	US 2004-766990	20040128
AU 2004268492	A1	20050310	AU 2004-268492	20040128
CA 2510677	AA	20050310	CA 2004-2510677	20040128
WO 2005021024	A1	20050310	WO 2004-US2537	20040128
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP 1587527	A1	20051026	EP 2004-706490	20040128
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
CN 1744908	A	20060308	CN 2004-80002967	20040128
NO 2005003972	A	20050825	NO 2005-3972	20050825
PRIORITY APPLN. INFO.:			US 2003-443315P P	20030128
			WO 2004-US2537 W	20040128

OTHER SOURCE(S): MARPAT 142:94139

AB The invention provides propofol (2,6-diisopropylphenol; HOQ) prodrugs, including methods for their synthesis and use to treat or prevent diseases or disorders such as migraine headache pain and post-chemotherapy or post-operative surgery nausea and vomiting. Amino acid and peptide prodrugs R1NHCH[(CH2)1-2-X-CO(CHR3)0-1OQ]COR2 [X is a bond, CH2, imino, O or S; R1 is H, R5NH(CHR4)1-2CO, R6, R6CO or R6O2C; R2 is OR7 or NR8(CHR9)1-2CO2R7; R3 is H, (un)substituted alkyl, aryl, carbamoyl, cycloalkyl, etc.; R4, R9 are independently H, (un)substituted alkyl, alkoxy, acyl, alkoxycarbonyl, aryl, arylalkyl, carbamoyl, cycloalkyl, cycloheteroalkyl, heteroalkyl, heteroaryl or heteroarylalkyl; or R4 and R5 or R8 and R9 on adjacent atoms form cycloheteroalkyl; R5 is H, R6 or R6CO; R6, R8 are independently (un)substituted alkyl, aryl, arylalkyl, cycloalkyl, cycloheteroalkyl, heteroaryl or heteroarylalkyl; R7 is H or R6] or their pharmaceutically-acceptable salts or N-oxides are claimed. Thus, H-Glu(OQ)-Asp-OH was prepared and had oral bioavailability as propofol > 40%.

L12 ANSWER 7 OF 24 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:846867 CAPLUS
DOCUMENT NUMBER: 142:199
TITLE: XP13512 [(±)-1-([(α-isobutanoyloxyethoxy)carbonyl]aminomethyl)-1-cyclohexaneacetic acid], a novel gabapentin prodrug: II. Improved oral bioavailability, dose proportionality, and colonic absorption compared with gabapentin in rats and monkeys
AUTHOR(S): **Cundy, Kenneth C.**; Annamalai, Thamil; Bu, Lin; de Vera, Josephine; Estrela, Jenny; Luo, Wendy; Shirsat, Payal; Torneros, Allan; Yao, Fenmei; Zou, Joan; Barrett, Ronald W.; **Gallop, Mark A.**
CORPORATE SOURCE: XenoPort, Inc., Santa Clara, CA, USA
SOURCE: Journal of Pharmacology and Experimental Therapeutics

(2004), 311(1), 324-333
CODEN: JPETAB; ISSN: 0022-3565
PUBLISHER: American Society for Pharmacology and Experimental Therapeutics
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The absorption of gabapentin (Neurontin) is dose-dependent and variable between patients. Rapid clearance of the drug necessitates dosing three or more times per day to maintain therapeutic levels. These deficiencies appear to result from the low capacity, limited intestinal distribution, and variable expression of the solute transporter responsible for gabapentin absorption. Saturation of this transporter at doses used clin. leads to unpredictable drug exposure and potentially ineffective therapy in some patients. XP13512 is a novel prodrug of gabapentin designed to be absorbed by high-capacity nutrient transporters located throughout the intestine. XP13512 was efficiently absorbed and rapidly converted to gabapentin after oral dosing in rats and monkeys. Exposure to gabapentin was proportional to prodrug dose, whereas exposure to intact XP13512 was low. In rats, >95% of an oral dose of 14C-XP13512 was excreted in urine in 24 h as gabapentin. In monkeys, oral bioavailability of gabapentin from XP13512 capsules was 84.2% compared with 25.4% after a similar oral Neurontin dose. Compared with intracolonic gabapentin, intracolonic XP13512 gave a 17-fold higher gabapentin exposure in rats and 34-fold higher in monkeys. XP13512 may therefore be incorporated into a sustained release formulation to provide extended gabapentin exposure. XP13512 demonstrated improved gabapentin bioavailability, increased dose proportionality, and enhanced colonic absorption. In clin. use, XP13512 may improve the treatment of neuropathic pain, epilepsy, and numerous other conditions by increasing efficacy, reducing interpatient variability, and decreasing frequency of dosing.
REFERENCE COUNT: 34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 8 OF 24 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:846866 CAPLUS
DOCUMENT NUMBER: 142:198
TITLE: XP13512 [(±)-1-([(α-isobutanoyloxyethoxy)carbonyl]aminomethyl)-1-cyclohexaneacetic acid], a novel gabapentin prodrug: I. Design, synthesis, enzymatic conversion to gabapentin, and transport by intestinal solute transporters
AUTHOR(S): **Cundy, Kenneth C.**; Branch, Russell; Chernov-Rogan, Tania; Dias, Tracy; Estrada, Tono; Hold, Karin; Koller, Kerry; Liu, Xiaoli; Mann, Adam; Panuwat, Matt; Raillard, Stephen P.; Upadhyay, Shubhra; Wu, Quincey Q.; Xiang, Jia-Ning; Yan, Hui; Zerangue, Noa; Zhou, Cindy X.; Barrett, Ronald W.; **Gallop, Mark A.**
CORPORATE SOURCE: XenoPort, Inc., Santa Clara, CA, USA
SOURCE: Journal of Pharmacology and Experimental Therapeutics (2004), 311(1), 315-323
CODEN: JPETAB; ISSN: 0022-3565
PUBLISHER: American Society for Pharmacology and Experimental Therapeutics
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Gabapentin is thought to be absorbed from the intestine of humans and animals by a low-capacity solute transporter localized in the upper small

intestine. Saturation of this transporter at doses used clin. leads to dose-dependent pharmacokinetics and high interpatient variability, potentially resulting in suboptimal drug exposure in some patients. XP13512 is a novel prodrug of gabapentin designed to be absorbed throughout the intestine by high-capacity nutrient transporters. XP13512 was stable at physiol. pH but rapidly converted to gabapentin in intestinal and liver tissue from rats, dogs, monkeys, and humans. XP13512 was not a substrate or inhibitor of major cytochrome P 450 isoforms in transfected baculosomes or liver homogenates. The separated isomers of XP13512 showed similar cleavage in human tissues. The prodrug demonstrated active apical to basolateral transport across Caco-2 cell monolayers and pH-dependent passive permeability across artificial membranes. XP13512 inhibited uptake of 14C-lactate by human embryonic kidney cells expressing monocarboxylate transporter type-1, and direct uptake of prodrug by these cells was confirmed using liquid chromatog.-tandem mass spectrometry. XP13512 inhibited uptake of 3H-biotin into Chinese hamster ovary cells overexpressing human sodium-dependent multivitamin transporter (SMVT). Specific transport by SMVT was confirmed by oocyte electrophysiol. studies and direct uptake studies in human embryonic kidney cells after tetracycline-induced expression of SMVT. XP13512 is therefore a substrate for several high-capacity absorption pathways present throughout the intestine. Therefore, administration of the prodrug should result in improved gabapentin bioavailability, dose proportionality, and colonic absorption compared with administration of gabapentin.

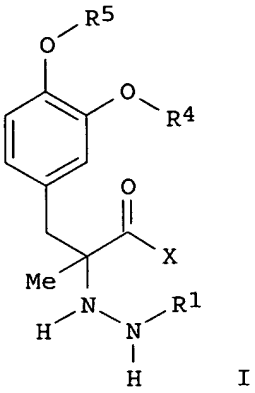
REFERENCE COUNT: 41 THERE ARE 41 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 9 OF 24 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:515471 CAPLUS
DOCUMENT NUMBER: 141:71827
TITLE: Preparation of carbidopa prodrugs
INVENTOR(S): Xiang, Jia-ning; **Gallop, Mark A.**; **Cundy, Kenneth C.**; Li, Jianhua; **Xu, Feng**; Zhou, Cindy X.; Bhat, Laxminarayan
PATENT ASSIGNEE(S): Xenoport, Inc., USA
SOURCE: PCT Int. Appl., 144 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004052841	A1	20040624	WO 2003-US38742	20031208
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2003293423	A1	20040630	AU 2003-293423	20031208
US 2004167216	A1	20040826	US 2003-728942	20031208
PRIORITY APPLN. INFO.:			US 2002-431304P P	20021206

WO 2003-US38742 W 20031208

OTHER SOURCE(S): MARPAT 141:71827
GI



I

AB The invention relates to prodrugs of carbidopa and compns. containing them, including methods for their synthesis and application. Prodrugs of formula I [X is OR10, OCR16R17O2CR11 or Q-(CR20R21)1-6CO2R10, where Q is O or NR15, R10, R11, R15, R16, R17, R20, R21 are H, (un)substituted alkyl or aryl, etc.; R1 is H or CO2CR16R17O2CR11; R4, R5 are H, (un)substituted alkyl or aryl, etc.] are claimed. Thus, 3-[3,4-bis(ethoxycarbonyloxy)phenyl]-2-hydrazino-2-methylpropionic acid acetoxymethyl ester was prepared from carbidopa and shown, when coadministered with L-dopa, to improve relative bioavailability of L-dopa.

L12 ANSWER 10 OF 24 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:412770 CAPLUS
DOCUMENT NUMBER: 140:391442
TITLE: Preparation of gemcitabine nucleoside prodrugs as antitumor and antiviral agents
INVENTOR(S): **Gallop, Mark A.**; Peng, Ge; Woiwode, Thomas F.; **Cundy, Kenneth C.**
PATENT ASSIGNEE(S): Xenoport, Inc., USA
SOURCE: PCT Int. Appl., 146 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004041203	A2	20040521	WO 2003-US35102	20031104
WO 2004041203	A3	20050421		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE,

ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK,
TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

AU 2003291726	A1	20040607	AU 2003-291726	20031104
US 2004142857	A1	20040722	US 2003-701965	20031104
EP 1567169	A2	20050831	EP 2003-768619	20031104

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK

PRIORITY APPLN. INFO.:	US 2002-423966P	P	20021104
	US 2002-426247P	P	20021113
	WO 2003-US35102	W	20031104

GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB The present invention provides gemcitabine prodrugs I, wherein R1 and R2 are independently is H, acyl, acyloxyalkylcarbonyl, oxycarbonyl; R3 is imine, amine, amino acid, methods of making gemcitabine prodrugs, pharmaceutical compns. of gemcitabine prodrugs and methods of using gemcitabine prodrugs and pharmaceutical compns. thereof to treat or prevent diseases or disorders such as cancer or viral infections. Thus nucleoside II was prepared and tested in vitro as antitumor and antiviral agent.

L12 ANSWER 11 OF 24 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:331762 CAPLUS
DOCUMENT NUMBER: 140:339635
TITLE: Preparation of GABA analogs as prodrugs
INVENTOR(S): **Gallop, Mark A.; Cundy, Kenneth C.** ; Zhou, Cindy X.; Qiu, Fayang G.; Yao, Fenmei; Xiang, Jia-Ning; Ollmann, Ian R.
PATENT ASSIGNEE(S): Xenoport, Inc., USA
SOURCE: U.S. Pat. Appl. Publ., 52 pp., Cont.-in-part of U.S. Ser. No. 171,485.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 4
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004077553	A1	20040422	US 2002-313825	20021206
US 2003176398	A1	20030918	US 2002-171485	20020611
US 6818787	B2	20041116		
ZA 2003009679	A	20041222	ZA 2003-9679	20020611
US 2004006132	A1	20040108	US 2003-459242	20030610
US 6972341	B2	20051206		
WO 2003104184	A1	20031218	WO 2003-US18495	20030611

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES,

FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR,
BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

AU 2003247522	A1	20031222	AU 2003-247522		20030611
EP 1554237	A1	20050720	EP 2003-757492		20030611
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK					
JP 2005529941	T2	20051006	JP 2004-511254		20030611
WO 2004052844	A1	20040624	WO 2003-US38703		20031205
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW					
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG					
AU 2003297676	A1	20040630	AU 2003-297676		20031205
EP 1569895	A1	20050907	EP 2003-812817		20031205
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK					
JP 2006509031	T2	20060316	JP 2004-559321		20031205
ZA 2003009678	A	20050812	ZA 2003-9678		20031212
US 2004198820	A1	20041007	US 2004-829896		20040421
PRIORITY APPLN. INFO.:			US 2001-297521P	P	20010611
			US 2001-298514P	P	20010614
			US 2002-366090P	P	20020319
			US 2002-171485	A2	20020611
			US 2002-170127	A1	20020611
			US 2002-313825	A	20021206
			WO 2003-US18495	W	20030611
			WO 2003-US38703	W	20031205

OTHER SOURCE(S): MARPAT 140:339635

AB The invention provides prodrugs of GABA analogs and pharmaceutical compns. containing these prodrugs for treating or preventing common diseases and/or disorders. Compds. of formulas R1(X-CHR2CO)nNHCHR3CR4R5CHR6CO-Y-R7 [n = 0 or 1; X = O or an imino group; Y = O or S; R1 = (thio)acyl or phosphoryl groups, alkylthio, arylthio, etc.; R2-R7 = H, (cyclo)alkyl, aryl, etc.; CR4R5 = (un)substituted cyclo(hetero)alkyl, bridged cycloalkyl], R20R21C:(NCHR2CO)t(X-CHR2CO)uNHCHR3CR4R5CHR6CO-Y-R7 [t, u = 0 or 1; R20, R21 = groups similar to R4 and R5] , and R1(X-CHR2CO)nNRCHR3CR4R5CHR6CO-R [R2 = CR22R23O (to form a lactone), where R22, R23 are groups similar to R4 and R5] are claimed. Thus, 1-[[[[(pivaloyloxy)methoxy]carbonyl]amino]methyl]-1-cyclohexaneacetic acid (51) was prepared by acylation of gabapentin with p-nitrophenyl pivaloyloxymethyl carbonate (preparation given). In vitro Caco-2 cellular permeabilities of the prodrugs were determined, with compound 51 having Papp (apical to basolateral) and Papp (basolateral to apical) values of 1.06x10-4 and 1.25x10-5 cm/s, resp.

L12 ANSWER 12 OF 24 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2003:912865 CAPLUS
DOCUMENT NUMBER: 139:375037
TITLE: Amino acid conjugates providing for sustained systemic concentrations of GABA analogs
INVENTOR(S): Scheuerman, Randall A.; **Gallop, Mark A.**; **Cundy, Kenneth C.**; Barrett, Ronald W.
PATENT ASSIGNEE(S): USA

SOURCE: U.S. Pat. Appl. Publ., 39 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2003216466	A1	20031120	US 2003-436100	20030513
WO 2003099338	A2	20031204	WO 2003-US13404	20030513
WO 2003099338	A3	20050210		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

AU 2003243180	A1	20031212	AU 2003-243180		20030513
PRIORITY APPLN. INFO.:			US 2002-381604P	P	20020517
			WO 2003-US13404	W	20030513

OTHER SOURCE(S): MARPAT 139:375037

AB The invention discloses compds. that provide for sustained systemic concns. of GABA analogs following administration to animals. The invention also provides pharmaceutical compns. including such compds. and methods using such compds. for the treatment of diseases (epilepsy, depression, anxiety, neuropathic pain, etc.). Compds. of the invention include e.g. N-β-(gabapentinyl)-L-diaminopropionylgabapentin (preparation included).

L12 ANSWER 13 OF 24 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2003:633401 CAPLUS
DOCUMENT NUMBER: 139:169338
TITLE: Engineering absorption of therapeutic compounds via colonic transporters
INVENTOR(S): Zerangue, Noa; **Cundy, Kenneth C.**; **Gallop, Mark A.**
PATENT ASSIGNEE(S): Xenoport, Inc., USA
SOURCE: PCT Int. Appl., 66 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003065982	A2	20030814	WO 2003-US2206	20030124
WO 2003065982	A3	20051208		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

US 2003158089	A1	20030821	US 2003-350893	20030123
US 2003158254	A1	20030821	US 2003-351291	20030123
CA 2473802	AA	20030814	CA 2003-2473802	20030124
EP 1575494	A2	20050921	EP 2003-737554	20030124
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
JP 2005529847	T2	20051006	JP 2003-565408	20030124

PRIORITY APPLN. INFO.:	US 2002-351808P	P	20020124
	US 2003-351291	A	20030123
	WO 2003-US2206	W	20030124

AB Methods of modifying therapeutic compds. such as drugs to be substrates for active transporters expressed in epithelial cells lining the lumen of the human colon are disclosed. The transporters expressed in the human colon include the sodium dependent multivitamin transporter (SMVT), and monocarboxylate transporters 1 and 4 (MCT 1 and MCT 4). The modified compds. can themselves be pharmacol. active, or upon cleavage of a chemical moiety after uptake from the colon, can be metabolized to form a compound that is pharmacol. active (e.g., a prodrug). The modified compds. disclosed herein are suitable for use in extended release oral dosage forms, particularly those that release drug over periods of greater than about 2-4 h following administration. For example, gabapentin was not taken up by colon whereas its prodrug, gabapentin pivaloxymethyl carbamate (preparation given), was taken up and converted to gabapentin. The conjugate moiety present in gabapentin pivaloxymethyl carbamate, and not present in the parent gabapentin mol., rendered the prodrug a substrate for a transporter expressed in the colon.

L12 ANSWER 14 OF 24 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:	2002:964180 CAPLUS
DOCUMENT NUMBER:	138:29152
TITLE:	Orally administered dosage forms of GABA analog prodrugs having reduced toxicity
INVENTOR(S):	**Cundy, Kenneth C.; Gallop, Mark A.**
PATENT ASSIGNEE(S):	Xenoport, Inc., USA
SOURCE:	PCT Int. Appl., 69 pp. CODEN: PIXXD2
DOCUMENT TYPE:	Patent
LANGUAGE:	English
FAMILY ACC. NUM. COUNT:	4
PATENT INFORMATION:	

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002100392	A1	20021219	WO 2002-US18701	20020611
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2449673	AA	20021219	CA 2002-2449673	20020611
US 2003083382	A1	20030501	US 2002-170127	20020611

US 6833140	B2	20041221			
EP 1404310	A1	20040407	EP 2002-737485		20020611
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR					
CN 1533270	A	20040929	CN 2002-814583		20020611
JP 2004534057	T2	20041111	JP 2003-503214		20020611
ZA 2003009679	A	20041222	ZA 2003-9679		20020611
CN 1753673	A	20060329	CN 2002-814572		20020611
ZA 2003009678	A	20050812	ZA 2003-9678		20031212
US 2004198820	A1	20041007	US 2004-829896		20040421
PRIORITY APPLN. INFO.:			US 2001-297521P	P	20010611
			US 2001-298514P	P	20010614
			US 2002-366090P	P	20020319
			US 2002-170127	A1	20020611
			WO 2002-US18701	W	20020611

AB The present invention provides an extended release oral dosage form of prodrugs of gabapentin and other GABA analogs, which dosage forms exhibit reduced toxicity. The dosage forms are particularly useful in administering those prodrugs of gabapentin and other GABA analogs that are metabolized to form an aldehyde. The dosage forms of the invention are useful for treating or preventing diseases and/or disorders for which the parent gabapentin or other GABA analog are known to be therapeutically effective. Suitable dosage ranges for oral administration are dependent on the potency of the particular GABA analog drug (once cleaved from the promoiety), but are generally 0.001-200 mg drug/kg body weight When the GABA analog is gabapentin, typical daily doses of the drug in adult patients are 900-3600 mg/day.

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 15 OF 24 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2002:964141 CAPLUS
DOCUMENT NUMBER: 138:24958
TITLE: Preparation of GABA analogs as prodrugs
INVENTOR(S): **Gallop, Mark A.; Cundy, Kenneth C.** ; Zhou, Cindy X.; Yao, Fenmei; Xiang, Jia-Ning; Ollman, Ian R.; Qui, Fayang G.
PATENT ASSIGNEE(S): Xenoport, Inc., USA
SOURCE: PCT Int. Appl., 148 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 4
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002100347	A2	20021219	WO 2002-US18689	20020611
WO 2002100347	A3	20031016		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				

CA 2449729	AA	20021219	CA 2002-2449729	20020611
US 2003083382	A1	20030501	US 2002-170127	20020611
US 6833140	B2	20041221		
EP 1404324	A2	20040407	EP 2002-744314	20020611
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
CN 1533270	A	20040929	CN 2002-814583	20020611
JP 2004536873	T2	20041209	JP 2003-516067	20020611
ZA 2003009679	A	20041222	ZA 2003-9679	20020611
NZ 530109	A	20050624	NZ 2002-530109	20020611
CN 1753673	A	20060329	CN 2002-814572	20020611
ZA 2003009678	A	20050812	ZA 2003-9678	20031212
US 2004198820	A1	20041007	US 2004-829896	20040421
PRIORITY APPLN. INFO.:			US 2001-297521P P	20010611
			US 2001-298514P P	20010614
			US 2002-366090P P	20020319
			US 2002-170127 A1	20020611
			WO 2002-US18689 W	20020611

OTHER SOURCE(S): MARPAT 138:24958

AB The invention provides prodrugs of GABA analogs and pharmaceutical compns. containing these prodrugs for treating or preventing common diseases and/or disorders. Compds. of formulas R1(X-CHR2CO)nNHCHR3CR4R5CHR6CO-Y-R7 [n = 0 or 1; X = O or an imino group; Y = O or S; R1 = (thio)acyl or phosphoryl groups, alkylthio, arylthio, etc.; R2-R7 = H, (cyclo)alkyl, aryl, etc.; CR4R5 = (un)substituted cyclo(hetero)alkyl, bridged cycloalkyl], R20R21C:(NCHR2CO)t(X-CHR2CO)uNHCHR3CR4R5CHR6CO-Y-R7 [t, u = 0 or 1; R20, R21 = groups similar to R4 and R5] , and R1(X-CHR2CO)nNRCHR3CR4R5CHR6CO-R [R2 = CR22R23O (to form a lactone), where R22, R23 are groups similar to R4 and R5] are claimed. Thus, 1-[[[[(pivaloyloxy)methoxy]carbonyl]amino]methyl]-1-cyclohexaneacetic acid (51) was prepared by acylation of gabapentin with p-nitrophenyl pivaloyloxymethyl carbonate (preparation given). In vitro Caco-2 cellular permeabilities of the prodrugs were determined, with compound 51 having Papp (apical to basolateral) and Papp (basolateral to apical) values of 1.06x10-4 and 1.25x10-5 cm/s, resp.

L12 ANSWER 16 OF 24 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2002:964138 CAPLUS
DOCUMENT NUMBER: 138:24957
TITLE: Amino acid conjugates providing for sustained systemic concentrations of GABA analogs
INVENTOR(S): **Gallop, Mark A.; Cundy, Kenneth C.** ; Scheuerman, Randall A.; Barrett, Ronald W.
PATENT ASSIGNEE(S): Xenoport, Inc., USA; Zerangue Noa
SOURCE: PCT Int. Appl., 111 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 9
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002100344	A2	20021219	WO 2002-US18493	20020611
WO 2002100344	A3	20040212		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,				

PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ,
UA, UG, US, UZ, VN, YU, ZA, ZM, ZW
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB,
GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA,
GN, GQ, GW, ML, MR, NE, SN, TD, TG

EP 1412324	A2	20040428	EP 2002-744288		20020611
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR					
JP 2005501013	T2	20050113	JP 2003-503171		20020611
US 2003181390	A1	20030925	US 2002-167381		20020612
US 2004254344	A1	20041216	US 2004-480293		20040713
US 2005214853	A1	20050929	US 2005-134728		20050520
PRIORITY APPLN. INFO.:			US 2001-297732P	P	20010611
			US 2002-364619P	P	20020318
			US 2002-361002P	P	20020301
			US 2002-170217	A1	20020611
			WO 2002-US18493	W	20020611

OTHER SOURCE(S): MARPAT 138:24957

AB The invention is directed to compds. H-Ij-Jj-D-Kk-OH [D is a moiety derived from a GABA analog; I is -[NR50-(CR51R52)a-(CR53R54)b-CO]-; J is [NR55(CR56R57)c-(CR58R59)d-CO]-; K is -[NR60-(CR61R62)e-(CR63R64)f-CO]-; where a-f, i-k are 0 or 1, provided that at least one of a and b, c and d, e and f, and i-k is 1; R50-R64 = H, alkyl, (hetero)aryl, etc. or may combine to form a ring] that provide for sustained systemic concns. of GABA analogs following administration to animals. Thus, a series of aminoacyl-gabapentin derivs. and L-4-bromophenylalanine-pregabalin were prepared and shown to elicit PEPT-specific currents significantly above background when tested at 1 mM on oocytes expressing either PEPT1 or PEPT2, thus confirming that these compds. serve as substrates for both of these transporters.

L12 ANSWER 17 OF 24 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2002:429031 CAPLUS
DOCUMENT NUMBER: 137:20509
TITLE: Preparation and formulation of bile-acid derived compounds for enhancing oral absorption and systemic bioavailability of drugs
INVENTOR(S): **Gallop, Mark A.; Cundy, Kenneth C.**
PATENT ASSIGNEE(S): Xenoport, Inc., USA
SOURCE: PCT Int. Appl., 185 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 9
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002044324	A2	20020606	WO 2001-US42612	20011005
WO 2002044324	A3	20030821		

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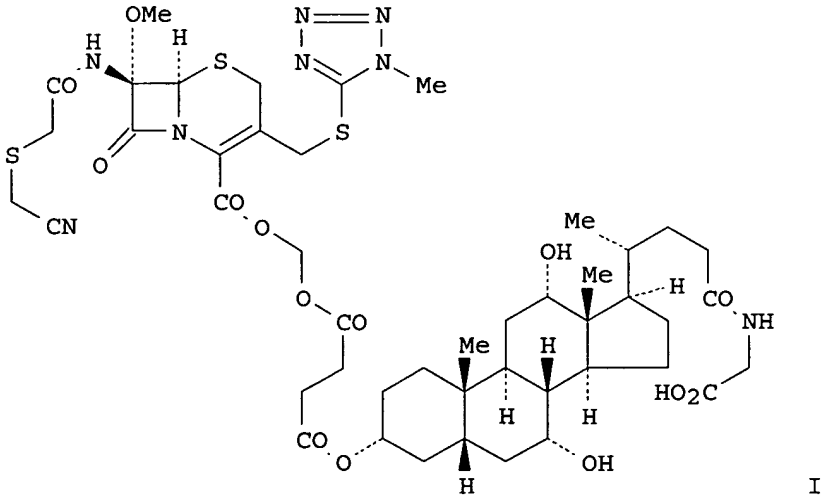
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR,

IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

AU 2002043204	A5	20020611	AU 2002-43204		20011005
US 2002099041	A1	20020725	US 2001-972411		20011005
EP 1358200	A2	20031105	EP 2001-989083		20011005
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR					
US 2005054559	A1	20050310	US 2004-887505		20040707
US 2005148564	A1	20050707	US 2005-53324		20050209
US 2005272710	A1	20051208	US 2005-183911		20050719
US 2005288228	A1	20051229	US 2005-218468		20050906
PRIORITY APPLN. INFO.:			US 2000-238758P	P	20001006
			US 2000-249804P	P	20001117
			US 2001-297472P	P	20010611
			US 2001-297594P	P	20010611
			US 2001-297641P	P	20010611
			US 2001-297654P	P	20010611
			US 2001-972283	A3	20011005
			US 2001-972402	A3	20011005
			US 2001-972425	A3	20011005
			WO 2001-US42612	W	20011005
			US 2001-974768	A3	20011009

OTHER SOURCE(S): MARPAT 137:20509

GI



I

AB Bile acid derived prodrugs of the form D-Y-T [D = a drug which is incompletely translocated across the intestinal wall; Y = cleavable linking group; T = a bile acid moiety to permit the prodrug to be translocated across the intestinal wall via the bile acid transport system] were prepared for pharmaceutical use. Thus, bile acid conjugate I was prepared starting from cholic acid, glycine tert-Bu ester, succinic anhydride, BrCH2Cl, and cefmetazole sodium salt. The prepared bile acid derived prodrugs were assayed in vitro for compound transport with IBAT and NTCP expressing cell lines. Disclosed are methods for providing enhanced systemic blood concns. of orally delivered drugs that are incompletely translocated across the intestinal wall of an animal. Also disclosed are methods for the sustained release of drugs, whether poorly or readily

bioavailable via oral delivery to animals. Still further, disclosed are compds. and pharmaceutical compns. that are used in such methods.

L12 ANSWER 18 OF 24 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2002:408761 CAPLUS
DOCUMENT NUMBER: 136:395937
TITLE: Amino acid conjugates for sustained systemic concentrations of GABA analogs
INVENTOR(S): **Gallop, Mark A.; Cundy, Kenneth C.** ; Sheuerman, Randall A.; Barrett, Ronald W.
PATENT ASSIGNEE(S): Xenoport, Inc., USA
SOURCE: PCT Int. Appl., 70 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 9
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002042414	A2	20020530	WO 2001-US43120	20011119
WO 2002042414	A3	20030410		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2002039257	A5	20020603	AU 2002-39257	20011119
US 2005054559	A1	20050310	US 2004-887505	20040707
US 2005148564	A1	20050707	US 2005-53324	20050209
US 2005214853	A1	20050929	US 2005-134728	20050520
US 2005272710	A1	20051208	US 2005-183911	20050719
US 2005288228	A1	20051229	US 2005-218468	20050906

PRIORITY APPLN. INFO.:

US 2000-249804P	P	20001117
US 2001-297732P	P	20010611
US 2000-238758P	P	20001006
US 2001-297472P	P	20010611
US 2001-297594P	P	20010611
US 2001-297641P	P	20010611
US 2001-297654P	P	20010611
US 2001-972283	A3	20011005
US 2001-972402	A3	20011005
US 2001-972425	A3	20011005
US 2001-974768	A3	20011009
WO 2001-US43120	W	20011119
US 2002-361002P	P	20020301
US 2002-170217	A1	20020611

OTHER SOURCE(S): MARPAT 136:395937
AB The invention discloses compds. that provide for sustained systemic concns. of GABA analogs following administration to animals. The invention also discloses pharmaceutical compns. including,and methods using, such compds. Preparation of amino acid-gabapentin conjugates is described, as are in vitro transport assays with PEPT1- and PEPT2-expressing cell lines and stability of gabapentin-containing prodrugs.

L12 ANSWER 19 OF 24 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2002:314729 CAPLUS
DOCUMENT NUMBER: 136:330526
TITLE: Bile-acid conjugates for providing sustained systemic concentrations of drugs
INVENTOR(S): **Gallop, Mark A.; Cundy, Kenneth C.** ; Zhou, Cindy X.
PATENT ASSIGNEE(S): Xenoport, Inc., USA
SOURCE: PCT Int. Appl., 149 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 9
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002032376	A2	20020425	WO 2001-US42613	20011005
WO 2002032376	A3	20030904		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2002030398	A5	20020429	AU 2002-30398	20011005
US 2002111338	A1	20020815	US 2001-972283	20011005
US 6900192	B2	20050531		
EP 1361847	A2	20031119	EP 2001-987653	20011005
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
US 2002142998	A1	20021003	US 2001-974768	20011009
US 6984634	B2	20060110		
US 2005054559	A1	20050310	US 2004-887505	20040707
US 2005148564	A1	20050707	US 2005-53324	20050209
US 2005272710	A1	20051208	US 2005-183911	20050719
US 2005288228	A1	20051229	US 2005-218468	20050906

PRIORITY APPLN. INFO.:		
US 2000-238758P	P	20001006
US 2000-249804P	P	20001117
US 2001-297472P	P	20010611
US 2001-297594P	P	20010611
US 2001-297641P	P	20010611
US 2001-297654P	P	20010611
US 2001-972283	A3	20011005
US 2001-972402	A3	20011005
US 2001-972425	A3	20011005
WO 2001-US42613	W	20011005
US 2001-974768	A3	20011009

OTHER SOURCE(S): MARPAT 136:330526
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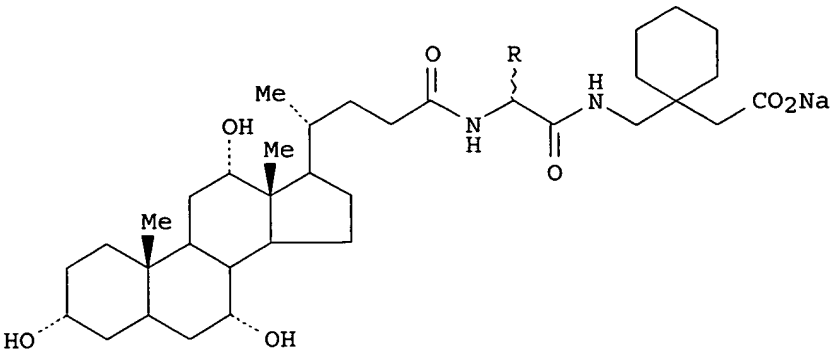

I

AB This invention is directed to compds. that provide for sustained systemic concns. of therapeutic or prophylactic agents following administration to animals. This invention is also directed to pharmaceutical compns. including and methods using such compds. Among example compds. prepared was I. Examples were given for in vitro transport for the compds. of IBAT (Na-dependent transporter)-expressing cells.

L12 ANSWER 20 OF 24 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2002:276010 CAPLUS
DOCUMENT NUMBER: 136:294977
TITLE: Preparation of bile acid conjugates for providing sustained systemic concentrations of drugs
INVENTOR(S): **Gallop, Mark A.; Cundy, Kenneth C.**
PATENT ASSIGNEE(S): Xenoport, Inc., USA
SOURCE: PCT Int. Appl., 142 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 9
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002028883	A1	20020411	WO 2001-US42628	20011009
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 2002111338	A1	20020815	US 2001-972283	20011005
US 6900192	B2	20050531		
AU 2002013468	A5	20020415	AU 2002-13468	20011009
US 2002142998	A1	20021003	US 2001-974768	20011009
US 6984634	B2	20060110		
EP 1347989	A1	20031001	EP 2001-981851	20011009
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
US 2005054559	A1	20050310	US 2004-887505	20040707
US 2005148564	A1	20050707	US 2005-53324	20050209
US 2005272710	A1	20051208	US 2005-183911	20050719

US 2005288228	A1	20051229	US 2005-218468		20050906
PRIORITY APPLN. INFO.:			US 2000-238758P	P	20001006
			US 2000-249804P	P	20001117
			US 2001-297472P	P	20010611
			US 2001-297594P	P	20010611
			US 2001-297641P	P	20010611
			US 2001-297654P	P	20010611
			US 2001-972283	A3	20011005
			US 2001-972402	A3	20011005
			US 2001-972425	A3	20011005
			US 2001-974768	A3	20011009
			WO 2001-US42628	W	20011009

OTHER SOURCE(S): MARPAT 136:294977

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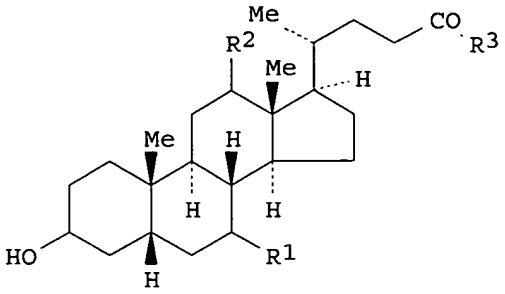

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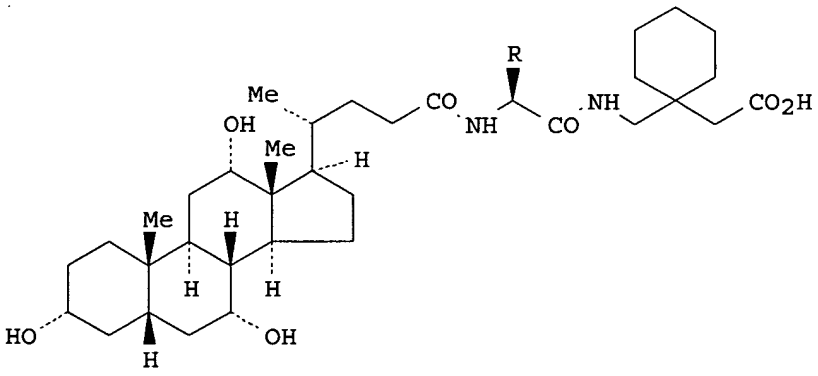

II

AB Bile acid conjugates, such as I [R1, R2 = H, OH; R3 = amide linked amino acid or peptide moiety], were prepared for pharmaceutical use as drug delivery moieties which provide for sustained systemic concns. of drugs. Thus, cholyl-Gly-Gabapentin II (R = H) was prepared by amide formation of cholic acid with glycine using ClCO2Et and Et3N in THF and subsequent amide formation of the glycine cholic acid amide with gabapentin using the same reagents. The prepared bile acid conjugates underwent in vitro compound transport assays with IBAT and LBAT expressing cell lines for inhibition of radiolabeled taurocholate uptake and assays with PEPT1 and PEPT2 expressing cells lines for inhibition of radiolabeled Gly-Sar uptake. Also, enzymic releaas of gabapentin for the conjugates by pancreatin and pharmacokinetics of the prodrug cholyl-Phe-Gabapentin II (R = CH2Ph) were examined

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 21 OF 24 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2002:276009 CAPLUS
DOCUMENT NUMBER: 136:294976
TITLE: Preparation of bile acid prodrugs of l-dopa and their use in the sustained treatment of Parkinsonism
INVENTOR(S): **Gallop, Mark A.; Cundy, Kenneth C.** ; Zhou, Cindy X.
PATENT ASSIGNEE(S): Xenoport, Inc., USA
SOURCE: PCT Int. Appl., 172 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 9
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
WO 2002028882	A1	20020411	WO 2001-US31394		20011005
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW					
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AU 2001096703	A5	20020415	AU 2001-96703		20011005
US 2002151526	A1	20021017	US 2001-972431		20011005
US 2005054559	A1	20050310	US 2004-887505		20040707
US 2005148564	A1	20050707	US 2005-53324		20050209
US 2005272710	A1	20051208	US 2005-183911		20050719
US 2005288228	A1	20051229	US 2005-218468		20050906
PRIORITY APPLN. INFO.:			US 2000-238758P	P	20001006
			US 2001-297654P	P	20010611
			US 2000-249804P	P	20001117
			US 2001-297472P	P	20010611
			US 2001-297594P	P	20010611
			US 2001-297641P	P	20010611
			US 2001-972283	A3	20011005
			US 2001-972402	A3	20011005
			US 2001-972425	A3	20011005
			WO 2001-US31394	W	20011005
			US 2001-974768	A3	20011009

OTHER SOURCE(S): MARPAT 136:294976
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Bile-acid conjugates, I [R1, R2 = H, OH; X = OH, YD; Y = bond, cleavable linker; D = L-DOPA or its derivative, catechol O-Me transferase inhibitor, aromatic L-amino acid decarboxylase inhibitor; W = alkyl substituted with CO2H, SO3H, SO2H, P(O)(OR6)(OH), OSO3H; R6 = (un)substituted alkyl, aryl, MY'D', CH2QC(O)Y'D'; M = CH2OC(O), CH2CH2C(O); Y' = bond, cleavable

linker; D' = D; Q = CH2, O] or their pharmaceutically acceptable salts, are substrates for an intestinal bile acid transporter useful for sustained release of L-DOPA, inhibitors of catechol O-Me transferase and/or inhibitors of aromatic L-amino acid decarboxylase. Thus, L-DOPA prodrug II was prepared in 75% from cholic acid, via mixed anhydride formation with ClCO2Et in THF containing Et3N, amidation with L-DOPA in aqueous NaHCO3 and regioselectively O-alkylation with ICH2O2CCMe3 in acetone containing Na2CO3. Prodrug II was pharmacol. tested [IC50 = 91 μM vs. IBAT-expressing cells; IC50 = 0.2 μM vs. LBAT-expressing cells; 90% hydrolysis of prodrug in human plasma after 60 mins. and 95% hydrolysis of prodrug in human intestine S9 after 60 mins.].

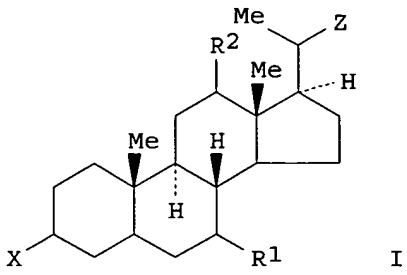
REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 22 OF 24 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2002:276008 CAPLUS
DOCUMENT NUMBER: 136:310071
TITLE: Preparation of bile-acid derived compounds for sustained release of orally delivered drugs
INVENTOR(S): **Gallop, Mark A.; Cundy, Kenneth C.** ; Zhou, Cindy X.
PATENT ASSIGNEE(S): Xenoport, Inc., USA
SOURCE: PCT Int. Appl., 214 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 9
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
WO 2002028881	A1	20020411	WO 2001-US42513		20011005
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW					
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG					
AU 2002011863	A5	20020415	AU 2002-11863		20011005
US 2002151529	A1	20021017	US 2001-972425		20011005
US 6992076	B2	20060131			
EP 1343805	A1	20030917	EP 2001-979953		20011005
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR					
US 2005054559	A1	20050310	US 2004-887505		20040707
US 2005148564	A1	20050707	US 2005-53324		20050209
US 2005272710	A1	20051208	US 2005-183911		20050719
US 2005288228	A1	20051229	US 2005-218468		20050906
PRIORITY APPLN. INFO.:			US 2000-238758P	P	20001006
			US 2000-249804P	P	20001117
			US 2001-297594P	P	20010611
			US 2001-297472P	P	20010611
			US 2001-297641P	P	20010611
			US 2001-297654P	P	20010611
			US 2001-972283	A3	20011005
			US 2001-972402	A3	20011005

	US 2001-972425	A3 20011005
	WO 2001-US42513	W 20011005
	US 2001-974768	A3 20011009

OTHER SOURCE(S): MARPAT 136:310071
GI



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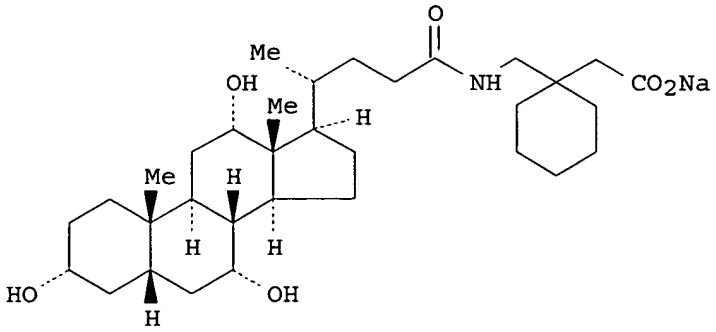

II

AB Bile-acid conjugates such as I [R1, R2 = H, OH; X = OH, DQT; T = O, NH; Q = bond, cleavable linker; D = GABA analog; Z = alkyl substituted with CO2H, SO3H, SO2H, P(O)(OR6)(OH), OSO3H; R6 = (un)substituted alkyl, aryl, MQ'D'; M = CH2OC(O), CH2CH2C(O); Q' = bond, cleavable linker; D' = D], or their pharmaceutically acceptable salts, were prepared for their use as substrates for an intestinal bile acid transporter, and thus I could be utilized to provides sustained systemic concns. of orally delivered drugs to an animal. Thus, prodrug II was prepared via treatment of the acid with NaOH obtained by the reaction of cholic acid and 1-aminomethyl-1-cyclohexaneacetic acid hydrochloride. Prodrug II was pharmacol. tested [IC50 = 36 μM vs. IBAT-expressing cells; IC50 = 8 μM vs. LBAT-expressing cells].

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 23 OF 24 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2002:275808 CAPLUS
DOCUMENT NUMBER: 136:295094
TITLE: Preparation of compounds for sustained release of orally delivered drugs
INVENTOR(S): **Gallop, Mark A.; Cundy, Kenneth C.**
PATENT ASSIGNEE(S): Xenoport, Inc., USA
SOURCE: PCT Int. Appl., 151 pp.

CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 9
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002028411	A1	20020411	WO 2001-US31486	20011005
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2002011538	A5	20020415	AU 2002-11538	20011005
US 2002098999	A1	20020725	US 2001-972402	20011005
EP 1343515	A1	20030917	EP 2001-979594	20011005
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
US 2005054559	A1	20050310	US 2004-887505	20040707
US 2005148564	A1	20050707	US 2005-53324	20050209
US 2005272710	A1	20051208	US 2005-183911	20050719
US 2005288228	A1	20051229	US 2005-218468	20050906

PRIORITY APPLN. INFO.:

US 2000-238758P	A1	20001006
US 2000-249804P	P	20001117
US 2001-297594P	P	20010611
US 2001-297641P	P	20010611
US 2001-297654P	P	20010611
US 2001-297472P	P	20010611
US 2001-972283	A3	20011005
US 2001-972402	A3	20011005
US 2001-972425	A3	20011005
WO 2001-US31486	W	20011005
US 2001-974768	A3	20011009

AB Disclosed are compds. and pharmaceutical compns. that are used for providing sustained systemic blood concns. of orally delivered drugs. Comounds D-Y-T [D is a drug having therapeutic or prophylactic activity when delivered to the systemic circulation of said animal; T is a moiety selected to permit the compound D-Y-T or an active metabolite to be translocated across the intestinal wall of an animal and participate in the enterohepatic circulation in said animal; and Y is a cleavable linker covalently connecting D to T, where Y is selected such that a portion of the linker is cleaved to release drug D or an active metabolite during each cycle through the enterohepatic circulation whereupon sustained release of drug D in said animal is achieved] are claimed. Thus, a series of cholyl-amino acid-gabapentin prodrugs was prepared and the in vitro enzymic release of gabapentin evaluated.

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 24 OF 24 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2001:208508 CAPLUS
DOCUMENT NUMBER: 134:249215
TITLE: Substrates and screening methods for transport proteins

INVENTOR(S): Dower, William J.; **Gallop, Mark**; Barrett, Ronald W.; **Cundy, Kenneth C.**; Chernov-Rogan, Tania
PATENT ASSIGNEE(S): Xenoport, Inc., USA
SOURCE: PCT Int. Appl., 144 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001020331	A1	20010322	WO 2000-US25439	20000914
WO 2001020331	C2	20021003		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
EP 1212619	A1	20020612	EP 2000-966735	20000914
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL				

PRIORITY APPLN. INFO.: US 1999-154071P P 19990914
WO 2000-US25439 W 20000914

AB A variety of methods for assaying libraries of test compds. as ligands and/or substrates of transport proteins, including both carrier-type and receptor-type transport proteins, are provided. Both in vitro and in vivo screening methods are disclosed. Also provided are methods for screening DNA libraries to identify members that encode transport proteins. Pharmaceutical compns. including compds. identified via the screening methods are also provided. CHO K1 cells expressing PEPT1 transporter of human or rat were prepared Fluorescent XP10486 was synthesized and used as PEPT1 substrate.

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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FILE CONTENT: 1961-PRESENT VOL 144 ISS 20 (20060512/ED)

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MOST RECENT CITATIONS FOR PATENTS FROM MAJOR ISSUING AGENCIES
(COVERAGE TO THESE DATES IS NOT COMPLETE):

US 2006062725 23 MAR 2006
DE 102004042453 02 MAR 2006
EP 1630164 01 MAR 2006
JP 2006066320 09 MAR 2006

WO 2006034632 06 APR 2006
GB 2416167 18 JAN 2006
FR 2875804 31 MAR 2006
RU 2270725 27 FEB 2006
CA 2514373 19 FEB 2006

Expanded G-group definition display now available.

New CAS Information Use Policies, enter HELP USAGETERMS for details.

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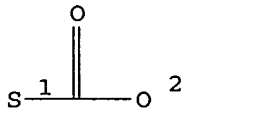
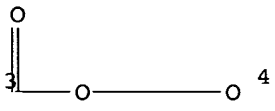
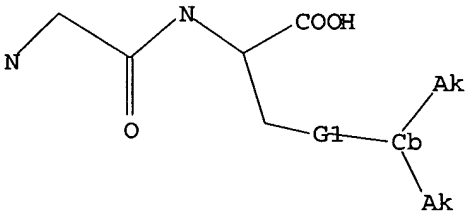
L2 STR







G1 [@1-@2], [@3-@4]

Structure attributes must be viewed using STN Express query preparation.
L13 16 SEA FILE=REGISTRY SSS FUL L2
L14 1 SEA FILE=CAPLUS ABB=ON PLU=ON L13
L17 7 SEA FILE=MARPAT SSS FUL L2
L18 2 SEA FILE=MARPAT ABB=ON PLU=ON L17/COM
L19 1 SEA FILE=MARPAT ABB=ON PLU=ON L18 NOT L14

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L19 ANSWER 1 OF 1 MARPAT COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 127:200050 MARPAT
TITLE: Nitrosated and nitrosylated α-adrenergic receptor antagonist compounds, preparation thereof, compositions containing them, and use in treatment of human impotence or erectile dysfunction
INVENTOR(S): Garvey, David S.; Schroeder, Joseph D.; Saenz De Tejada, Inigo
PATENT ASSIGNEE(S): Nitromed, Inc., USA; Garvey, David S.; Schroeder,

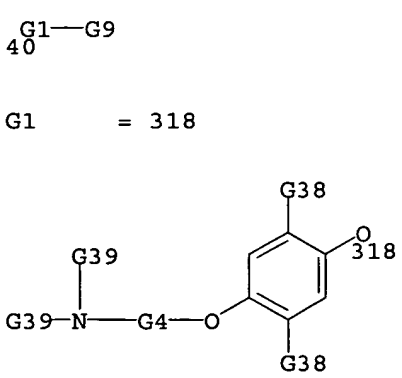
Joseph D.; Saenz De Tejada, Inigo
SOURCE: PCT Int. Appl., 96 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 9
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9727749	A1	19970807	WO 1997-US1294	19970128
W: AU, CA, IL, JP, US				
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
AU 9717562	A1	19970822	AU 1997-17562	19970128
AU 721247	B2	20000629		
JP 2000505424	T2	20000509	JP 1997-537755	19970128
EP 1018879	A1	20000719	EP 1997-904887	19970128
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
US 6294517	B1	20010925	US 1998-145143	19980901
US 6514934	B1	20030204	US 1999-280540	19990330
US 6323211	B1	20011127	US 1999-285048	19990402
US 6417162	B1	20020709	US 1999-306809	19990507
US 6433182	B1	20020813	US 1999-306805	19990507

PRIORITY APPLN. INFO.: US 1996-595732 19960202
US 1996-714313 19960918
WO 1997-US1294 19970128
US 1998-145143 19980901

AB Disclosed are nitrosated and nitrosylated α-adrenergic receptor antagonists; compns. of an α-adrenergic receptor antagonist optionally substituted with ≥1 NO or NO2 moiety, and a compound that donates, transfers, or releases nitric oxide as a charged species, i.e., nitrosonium or nitroxyl, or as the neutral species, nitric oxide; and uses for each of them in treating human impotence or erectile dysfunction. Preparation of compds. of the invention, e.g. N-(N-L-γ-glutamyl-S-nitroso-L-cysteinyl)glycine and 4-[2-(dimethylamino)ethoxy]-2-methyl-5-(1-methylethyl)phenol-(3-S-nitroso-3-methylbutyric acid)ester. The effect of selected compds. on erectile response in rabbits was determined

MSTR 1



C(O)-G37—G21
69

G11 = NH
G16 = alkylene (opt. substd. by 1 or more G17)
G17 = NH2
G21 = alkyl (substd. by 1 or more G22)
G22 = 74 / 338

C(O)-G40 G11—C(O)-G16—G19
74 338

G37 = S
G38 = alkyl <containing 1-10 C>
G40 = OH
Patent location: claim 2
Note: substitution is restricted
Note: additional ring and oxo formation also claimed